

Claims

1. A method of producing a fibre reinforced composite by pultrusion having variable strength characteristics along its length including the steps of drawing through a pultrusion die a series of reinforcing fibres to form a pultruded fibre composite product characterised by incorporating in the reinforcing fibres prior to the pultrusion step additional fibres having a characteristic different from that of the said reinforcing fibres in order to vary the strength characteristics of the final product substantially without altering the cross-sectional area thereof, a plastics matrix material being applied around the fibres and allowed to solidify to form the finished composite.

2. A method according to claim 1 in which the said characteristic is selected from the group fibre tenacity and fibre modulus.

3. A method according to claim 1 or 2 in which the additional fibres are spliced between discrete lengths of the reinforcing fibres.

4. A method according to claim 1 or 2 in which the additional fibres are interlaced amongst continuous said reinforcing fibres.

5. A method according to any of claims 1 to 4 in which the plastics matrix material is applied to the fibres, within the die.

6. A method according to any of claims 1 to 4 in which the fibres are pre-impregnated with a plastics matrix material before being drawn through the die.

7. A method according to any preceding claim in which the fibres are in the form of a woven web.

8. A method according to any one of claims 1 - 6 in which the fibres are in the form of a non-woven web.

9. A composite structural member produced according to the method of any preceding claim.
10. A composite structural member according to claim 9 comprising an aircraft skin stringer.
11. An aircraft aerofoil incorporating a composite structural member according to claim 9 or 10.

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